

REMARKS

To further prosecution of the present application, Applicants have amended herein independent Claims 1, 4, 8-10, 16, 18, 21, and 24. Applicants respectfully request reconsideration.

In addition, Applicants have added new Claims 25 and 26 to the present application. New Claims 25 and 26 do not add new subject matter and have antecedent basis. Claims 1-26 therefore are currently pending with Claims 1, 4, 10, 16, 18, 21 and 24 in independent form.

Rejection of Claims 1-24 Pursuant to 35 U.S.C. § 103(a)

Claims 1-24 have been rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over U.S. 5,955,946 issued to Beheshti (hereinafter “Beheshti”) in view of U.S. 6,549,880 issued to Willoughby (hereinafter “Willoughby”). Applicants respectfully traverse the rejection of Claims 1-24 pursuant to 35 U.S.C. § 103(a) as being unpatentable over Beheshti in view of Willoughby for the reasons given below.

Independent Claim 1 has been amended herein and is directed to a notification system for at least one power supply coupled to a computer network and adapted to transmit data over the computer network when the at least one power supply undergoes an entry of a critical state, the notification system comprising a computer system connected to the computer network. The computer system is adapted to monitor in substantially real time information transmitted over the computer network and to detect in substantially real time an occurrence of the data being associated with an actual entry of the critical state and an actual exit of the critical state; store information relating to the data being associated with the entry and exit of the critical state; and report over the computer network at least one of: (i) a combination of an actual entry time of the critical state and an actual exit time of the critical state, and (ii) an actual duration of time as a difference between the actual entry time and the actual exit time of the critical state.

The Examiner has indicated in the Office Action that Beheshti does not explicitly disclose “report over the computer network at least one of: (i) a combination of an entry time of the critical state and an exit time of the critical state, and (ii) an duration of time as a difference between the entry time and the exit time of the critical state.” However, the Examiner contends that Willoughby discloses a reliability analysis engine that works off of real world data to determine fault statistics, and that such teachings are specifically geared toward power faults and

would allow fine tuning of an electrical network, including planning, prevention and post fault analysis. Therefore, it would have been obvious to one having ordinary skill in the art to combine the teachings of Willoughby with Beheshti to modify the fault reporting system of Beheshti to provide a more comprehensive fault handling system.

Applicants respectfully disagree with this conclusion and respectfully submit that the cited combination of references does not disclose, teach or suggest at least the limitations of amended Claim 1 directed to the computer system being adapted to: *monitor in substantially real time information transmitted over the computer network and detect in substantially real time an occurrence of the data being associated with an actual entry of the critical state and an actual exit of the critical state; and report over the computer network at least one of: (i) a combination of an actual entry time of the critical state and an actual exit time of the critical state, and (ii) an actual duration of time of the critical state.*

As the Examiner indicates in the Office Action, Willoughby is directed to a reliability analysis engine that works off of real world data to determine fault statistics in order to increase reliability of a power distribution system, such as a system provided and serviced by an electric utility company. In general, the analysis engine determines reliability indices and relates such indices to, for instance, repair time and failure rate. Such indices are used to determine if system reliability can be more easily improved by reducing failure rates or reducing repair times. In addition, the analysis engine can also determine such reliability indices based upon hypothetical data in order to model various implementations to reduce failure rates and/or to reduce repair times in order to assess the potential improvement in system reliability.

However, although the analysis engine of Willoughby applies “real world data,” in contrast to Claim 1, the analysis engine is not connected to a computer network and does not monitor in substantially real time information transmitted over the computer network. Nor does the analysis engine of Willoughby detect in substantially real time an occurrence of the data being associated with an actual entry of the critical state and an actual exit of the critical state. Therefore, the analysis engine does not report over the computer network a combination of an actual entry time and an actual exit time of the critical state and/or an actual duration of time of the critical state. Rather, the analysis engine of Willoughby employs data related to, for instance, failure rates after the occurrence of such failures. Failure data are collected with respect to one or more circuits servicing certain regions of an electric utility company and are stored in the

utility's customer information system (CIS) database. (col. 16, lines 40-43). The analysis engine thereafter employs such stored real world data to determine reliability indices. In addition, the analysis engine employs data related to "what-if" or hypothetical scenarios to determine simulated reliability indices.

As the Examiner notes, the analysis engine determines fault statistics and is substantially driven by various computer modules that generate various models based on real or hypothetical data; however, the analysis engine is not connected to a computer network to serve as a notification system, such as the system of Claim 1, and does not monitor and detect over the computer network on an ongoing basis the states of one or more power supplies. In other words, Willoughby does not teach or suggest the analysis engine monitors in substantially real time information transmitted over the computer network and detects in substantially real time an occurrence of the data being associated with the actual entry of the critical state and the actual exist of the critical state. Therefore, Willoughby does not teach or suggest the analysis engine reports over the computer network a combination of an actual entry time and an actual exit time of the critical state and/or an actual duration of time of the critical state.

Thus, Applicants respectfully submit that Willoughby does not teach or suggest at least the above-described limitations; therefore, the suggested combination of references would not achieve the claimed invention recited in Claim 1. In addition, the teachings of Willoughby would not have motivated one of ordinary skill in the art at the time of the invention to modify the teachings of Beheshti to at least report over the computer network a combination of an actual entry time and an actual exit time of the critical state and/or an actual duration of time of the critical state.

The invention of Claim 1 therefore is patentably distinguishable from Beheshti in view of Willoughby. Accordingly, the rejection of Claim 1 pursuant to 35 U.S.C. § 103(a) should be withdrawn.

Without commenting on the position the Examiner has taken in the Action with respect to the limitations recited in Claims 2-3, Claims 2-3 depend from Claim 1 and are patentable for at least the reasons given above. The rejection of Claims 2-3 should be withdrawn.

Independent Claim 4 has been amended herein and is directed to a notification system for at least one power supply coupled to a computer network and adapted to transmit data over the

computer network when the at least one power supply undergoes an entry of a critical state. The notification system comprising a computer system connected to the computer network, the computer system being adapted to: monitor information transmitted over the computer network and detect in substantially real time an occurrence of the data being associated with an actual entry of the critical state; store information relating to the data being associated with the entry and exit of the critical state; and report over the computer network information relating to a duration of the critical state; wherein the computer is further adapted to, in response to detecting the occurrence of the data being associated with the actual entry of the critical state, continuously poll the power supply system over the computer network at predetermined time intervals until a poll indicates that the power supply system has actually left the critical state.

The Examiner has indicated in the Office Action that Beheshti discloses the invention of Claim 4, and also has indicated that Beheshti does not explicitly disclose the last subparagraph “wherein the computer is further adapted, in response to detecting the occurrence of the data being associated with the entry of the critical state, continuously polls the power supply system at predetermine time intervals until a poll indicates that the power supply system has left the critical state.” Applicants assume that this is a typographical error in the Action, and responds herein as if the Action indicated Beheshti does not explicitly disclose the last subparagraph but Willoughby does.

Applicants respectfully disagree with this conclusion and respectfully submit that the cited combination of references does not disclose, teach or suggest at least the limitations of amended Claim 4 directed to the computer system being adapted to: *monitor information transmitted over the computer network and detect in substantially real time an occurrence of the data being associated with an actual entry of the critical state; and wherein the computer is further adapted to, in response to detecting the occurrence of the data being associated with the actual entry of the critical state, continuously poll the power supply system over the computer network at predetermined time intervals until a poll indicates that the power supply system has actually left the critical state.*

Similar to the discussion given above with respect to Claim 1, the analysis engine Willoughby discloses is not connected to a computer network such that the engine may monitor information transmitted over the computer network and detect in substantially real time data associated with an actual entry of a critical state of a power supply. In addition, the analysis

engine of Willoughby does not continuously poll the power supply system over the computer network at predetermined time intervals in response to the actual entry of the critical state until a poll indicates the system has actually left the critical state. As mentioned, the analysis engine of Willoughby employs collected and stored real world failure data, or hypothetical failure data, including beginning and ending times of power interruptions that have been previously collected and stored in the CIS database. The analysis engine does not monitor information over the computer network and does not detect in substantially real time an actual entry of the critical state, as the claimed computer system of Claim 4 does. Therefore, the analysis engine does not, in response to detecting data associated with the actual entry of the critical state, continuously poll the power supply system over the computer network until a poll indicates the power supply system has actually left the critical state.

In short, the notification system of Claim 4 is for ongoing monitoring and detecting over a computer network of critical states of at least one power supply and the reporting thereof in terms of a duration of such critical state, while the analysis engine of Willoughby applies real world data related to power distribution incidences to computer models after such incidences have occurred to assess reliability of the power distribution.

Applicants therefore respectfully submit that the cited combination of references does not achieve the notification system of Claim 4. In addition, the teachings of Willoughby would not have motivated one of ordinary skill in the art to modify the system of Beheshti to include the limitations discussed above.

Thus, Applicants respectfully submit the invention of Claim 4 is patentably distinguishable over Beheshti in view of Willoughby. The rejection of Claim 4 under 35 U.S.C. § 103(a) therefore should be withdrawn.

Independent Claims 10, 16, 18 and 24 are collectively discussed below given the Examiner has indicated in the Office Action that Claim 16 is the means plus function embodiment of Claim 10, Claim 18 is the method embodiment of Claim 10, and Claim 24 is considered the article of manufacture of Claim 10. Claims 10, 16, 18 and 24 have been amended herein. For the sake of brevity, Applicants do not recite below each of the amended Claims, but provide only those limitations of the Claims pertinent to the discussion.

Applicants respectfully submit that the cited combination of references does not achieve the invention of Claim 10, 16, 18 or 24. In particular, Applicants respectfully submit that Beheshti in combination with Willoughby does not disclose, teach or suggest at least the limitations of Claim 10 directed to: *the computer system adapted to monitor information transmitted over the computer network and detect in substantially real time a trap being associated with an actual entry of the critical state, and report over the computer network the information relating to an actual duration of each critical state of each power supply, the actual duration being a difference between the actual entry time of the critical state and an actual exit time of the critical state.*

In addition, Beheshti in combination with Willoughby does not disclose, teach or suggest at least the limitations of Claim 16 directed to: *means for monitoring information transmitted over the computer network and means for detecting in substantially real time a trap being associated with an actual entry of the critical state; and means for reporting over the computer network the information relating to the actual duration of each critical state of each power supply, the actual duration being a difference between an actual entry time of the critical state and an actual exit time of the critical state the computer system detects in substantially real time.*

Beheshti in combination with Willoughby also does not disclose, teach or suggest at least the limitations of Claim 18 directed to: *monitoring the computer network for an indication that a power supply has actually entered a critical state; and reporting over the computer network the information relating to an actual duration of the critical state of the power supply, the actual duration being a difference between an actual entry time of the critical state and an actual exit time of the critical state detected over the computer network in substantially real time.*

Further, the combination of Beheshti and Willoughby does not disclose, teach or suggest at least the limitations of Claim 24 directed to: *an article of manufacture, comprising a computer usable medium having computer readable program code means comprising: computer readable program code means for causing the computer system to monitor the computer network and to detect in substantially real time an indication transmitted over the computer network that a power supply has actually entered a critical state; and computer readable program code means for causing the computer system to report over the computer network the information relating to an actual duration of the critical state of the power supply, the actual duration being a difference*

*between an actual entry time of the critical state and an actual exit time of the critical state the computer system detects in substantially real time.*

Similar to the discussion given above with respect to Claim 1, the analysis engine of Willoughby is not connected to a computer network and therefore does not have the ability to monitor information transmitted over the computer network and to detect in substantially real time a trip related to a power supply undergoing an actual entry of a critical state, or an indication a power supply has actually entered a critical state. Therefore, Willoughby cannot report over the computer network the actual duration of each critical state, or information relating to the actual duration of the critical state, and cannot cause the computer system to report the actual duration of the critical state, where the actual duration is the difference between an actual entry time and an actual exit time of the critical state detected over the computer network in substantially real time, or the computer system detects in substantially real time.

Thus, Applicants respectfully submit that the cited combination of references does not achieve the inventions recited in Claims 10, 16, 18 and 24. Further, Applicants respectfully submit that the teachings of Willoughby do not provide the motivation for one having ordinary skill in the art to modify the system of Beheshti to include at least those limitations of the notification system described above.

Claims 10, 16, 18 and 24 therefore are patentably distinguishable from the cited combination of references. Accordingly, the rejection of Claims 10, 16, 18 and 24 should be withdrawn.

Without commenting on the position the Examiner has taken in the Action with respect to dependent Claims 11-15, 17 and 19-20, Claims 11-15 depend from Claim 10 and are patentable for at least the reasons given above, Claim 17 depends from Claim 16 and is patentable for at least the reasons given above, and Claims 19-20 depend from Claim 18 and are patentable for at least the reasons given above. Therefore, the rejection of Claims 11-15, 17 and 19-20 should be withdrawn.

Independent Claim 21 has been amended herein and is directed to a method of providing over a computer network a notification of a power supply in a critical state, the method comprising: monitoring in substantially real time the computer network for an indication that a power supply has actually entered a critical state; if the power supply has actually entered a

critical state, monitoring over the computer network for an actual status of a battery of a power supply; if monitoring has indicated that the battery is operative and was previously inoperative, recording an actual time period that the battery was inoperative; and if monitoring has indicated that communication is reestablished but was previously lost with the power supply, recording an actual time period that communication was lost with the power supply.

Applicants respectfully submit that that Willoughby does not disclose, teach or suggest at least the limitations of Claim 21 directed to *if monitoring has indicated that the battery is operative and was previously inoperative, recording an actual time period that the battery was inoperative; and if monitoring has indicated that communication is reestablished but was previously lost with the power supply, recording an actual time period that communication was lost with the power supply* because such monitoring includes *monitoring in substantially real time the computer network for an indication that a power supply has actually entered a critical state*.

The analysis system of Willoughby, as mentioned, is not connected to a computer network and therefore would not conduct monitoring in substantially real time the computer network for an indication of a critical state, such indications being the battery is operative and was previously inoperative, and communication is reestablished and was previously lost with the power supply. For reasons similar to those provided above with respect to Claim 1, Claim 21 is a method of providing notification over a computer network and those limitations directed to monitoring in substantially real time the computer network that a power supply has actually entered a critical state cannot be achieved with the analysis engine of Willoughby.

Thus, Applicants respectfully submit the cited combination of references does not achieve the disclosed invention of Claim 21. Further, the teachings of Willoughby are restricted to beginning times and ending times of interruption events that are not monitored in substantially real time, but rather are collected and stored in the CIS database for future application by the analysis engine to determine fault statistics. Therefore, the teachings of Willoughby would not motivate one of ordinary skill in the art to modify the system of Beheshti to achieve the claimed notification method.

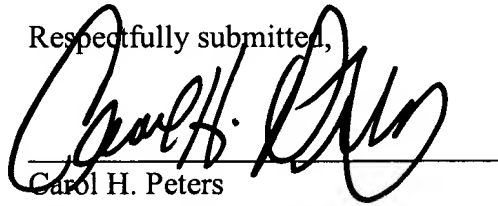
Applicants respectfully submit the invention of Claim 21 is patentably distinct from the cited combination of references. The rejection of Claim 21 therefore should be withdrawn.



Without commenting on the position the Examiner has taken in the Action with respect to Claims 22-23, Claims 22-23 depend from Claim 21 and are patentable for at least the same reasons. Withdrawal of the rejection of Claims 22-23 therefore should be made.

Based on the foregoing amendments and discussion, the present application is in condition for allowance, and a notice to this effect is respectfully requested. Should the Examiner have any questions concerning this response, he is invited to telephone either of the undersigned attorneys.

Respectfully submitted,



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